IN THE UNITED STATES DISTRICT COURT

FOR THE WESTERN DISTRICT OF TEXAS

AUSTIN DIVISION

VLSI TECHNOLOGY LLC,
 	
      Plaintiff,
 	
    v.
 	
INTEL CORPORATION,
 	
      Defendant.
	Lead Case: 1:19-cv-977-ADA
	
	(*Consolidated with* Nos. 6:19-cv-254-ADA,
	6:19-cv-255-ADA, 6:19-cv-256-ADA)
	
	ORAL ARGUMENT REQUESTED
	
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VLSI'S OPPOSITION TO INTEL'S *DAUBERT* MOTION TO EXCLUDE TESTIMONY OF DR. RYAN SULLIVAN (D.I. 264)

10883190

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* Unless otherwise noted, internal citations and subsequent history are omitted, and emphasis is added.

** Numbered exhibits are attached to the Declaration of Brian M. Weissenberg. The lettered exhibit is attached to the expert declaration of Dr. Mangione-Smith.

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I.   INTRODUCTION

It is blackletter patent law that damages are owed "in no event less than a reasonable royalty for the use made of the invention by the infringer." 35 U.S.C. § 284. It is equally axiomatic that any such calculation of damages must be tied "to the facts of the case." *Uniloc USA, Inc. v. Microsoft Corp.*, 632, F.3d 1292, 1315 (Fed. Cir. 2011). VLSI has followed that standard to the letter. VLSI's technical experts carefully analyzed infringing features and identified specific percentage power and performance benefits associated with Intel's infringement. Those specific ██████████████ benefits—benefits which are extraordinarily important in the highly competitive semiconductor industry—have allowed Intel to reap ██████████████.

Rather than grapple with the consequences of that infringement, however, Intel's motion to exclude the testimony of Dr. Ryan Sullivan, a Ph.D. economist and VLSI's primary damages expert, instead chooses to sow confusion, alternately mischaracterizing the facts, Dr. Sullivan's analysis, and the law of the hypothetical negotiation. In its introduction, Intel states that ██████████████ ██████████████ D.I. 264 at 1. That is not true.[1] Intel states that the asserted patents ████████ ██ That, too, is not accurate.[2] Intel then claims that these assertions are "undisputed." We disagree.

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Even if those assertions *were* true, the critical question in the hypothetical negotiation would still be the measure of the value actually received *by Intel* through its infringement. Dr. Sullivan conducts exactly this analysis. Intel's motion constructs an elaborate strawman of VLSI's damages case, then attempts to tear that fiction down with mere expert disagreement and misplaced legal arguments. Even if any of Intel's criticisms were valid (and they are not), they would be classic examples of questions going to weight, not admissibility. Intel's motion should be denied.

II.   BACKGROUND

Intel urges the Court to take each step of Dr. Sullivan's analysis out of context, and to adopt a view of Dr. Sullivan's damages methodology that is inconsistent with his report and deposition testimony. At the highest level, Dr. Sullivan's methodology is simple. He begins with the specific *technical* ███████████████ benefits attributable to VLSI's patents, as calculated by technical experts. He then calculates the *economic* benefit associated with those specific technical benefits. He *deducts* Intel's costs. He then *apportions profits* based on Intel's contributions.

Because of the realities of these cases and the complexity of the accused technologies, the technical and economic benefit inquiries are carried out using multiple tools and sources; and the cost and contribution apportionments, while distinct, are handled in a single calculation. None of this is grounds for exclusion. The actual steps of Dr. Sullivan's analysis are discussed further below.

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[3] In the first case, Prof. Thomas Conte handled the analyses for the '373 and '759 Patents, and Prof. Mitchell Thornton conducted those analyses for the '357 Patent. In the second case, Prof. Michael Brogioli handled the '522 Patent, and Prof. Glenn Reinman handled the '187 Patent. In the third case, Prof. R. Jacob Baker analyzed the '485 and '025 Patents, and Dr. William Mangione-Smith analyzed the '983 Patent.

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III.   ARGUMENT

A.   Dr. Sullivan's Damages Opinions Are Reliable, Apportioned To The Benefits Of The Asserted Patents, And Tied At Every Step To The Facts Of The Case

In these cases, Dr. Sullivan has employed a fact-intensive damages methodology that is carefully tailored to the specific technological benefits of the asserted patents. Dr. Sullivan relies on technical experts to assess the patents' incremental technical value, converts that technical value to economic value, deducts Intel's costs, and apportions the resulting profits. This general methodology has been approved time and again by the Federal Circuit. *See, e.g.¸ Rembrandt Wireless Techs., LP v. Samsung Elecs. Co.*, 853 F.3d 1370, 1380-81 (Fed. Cir. 2017) (The "royalty calculations were properly based on the incremental value that the patented invention adds to the end

product.").

Intel states that Dr. Sullivan's analysis is "new." There is nothing new about this approach. A cornerstone of Dr. Sullivan's analysis is regression, which has been used by everyone from the U.S. Bureau of Labor Statistics (to determine prices and inflation), Ex. 288, Byrne (2017), to Intel's own expert, Ex. 232, Hitt et al. (1998), and has been the subject of countless publications across industries. Intel also states that Dr. Sullivan's analysis is "untested," but Dr. Sullivan conducted multiple tests and robustness checks on his analysis, *e.g.*, Ex. A, Sullivan Rpt. ¶¶ 200-09, and Intel's own expert, Dr. Lorin Hitt, was able to replicate and test Dr. Sullivan's model. Ex. 233, Hitt Rpt. ¶ 110 ████████████████████████████. Intel calls the model "litigation-driven," but this is simply a pejorative reframing of Dr. Sullivan's approach, which was carefully tailored to the specific facts and the specific sets of data available *in these cases*. That it complies with Federal Circuit authority requiring fact-intensive calculations is a feature of his analysis, not a flaw.

Intel's motion misapplies the relevant legal standards, misapprehends Dr. Sullivan's analysis, and raises criticisms that at most go to weight, not admissibility.

1. Intel Urges The Court To Apply The Incorrect Standard

Intel first argues that Dr. Sullivan's model is unreliable because "there is no publication, study, or real-world transaction validating this methodology." These arguments regarding the alleged inapplicability of Dr. Sullivan's model in the "real world" are both incorrect and red herrings.

First, Intel has it backwards: the goal of a damages analysis is not to recapitulate a real-world patent licensing negotiation. Instead, a proper reasonable royalty analysis must assess the value of the infringer's specific use of the patented technology in its accused products. *ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860, 869 (Fed. Cir. 2010). A hypothetical negotiation—which is fundamentally different from a real world negotiation—is just one optional tool that can be used to assess that value. *E.g.*, *TWM Mf'g Co. v. Dura Corp.*, 789 F.2d 895 (Fed. Cir. 1986). And as discussed below, even in

hypothetical negotiations, generalized rules of thumb common in "real-world" negotiations are routinely rejected as insufficiently linked to a patent's specific value.

But even if "real-world" licensing conditions were the gold standard as Intel suggests, Intel's claims that Dr. Sullivan's methodology has never been used in the real world are simply that: claims. Dr. Sullivan testified that this methodology *has* been used in connection with real-world negotiations. Ex. 230, Sullivan Dep. 133:20-136:13 ███████████████████████████████

███. Intel's motion ignores this testimony, and ignores that courts have approved Dr. Sullivan's approach. *See, e.g.*, *Intel Corp. v. Future Link Sys., LLC*, No. 14-377, 2017 WL 2482881, at *3 (D. Del. June 1, 2017).

Second, in assessing Dr. Sullivan's methodology, Intel uses the wrong level of abstraction, either focusing too narrowly on the fact-specific details of these cases or on the exact combination of steps in a way that ignores each step's legitimacy. In reality, Dr. Sullivan's methodology is just a logical collection of court–approved steps. First, Dr. Sullivan takes as inputs the specific technical benefits attributable to VLSI's patents, as calculated by technical experts, a step the Federal Circuit all but requires. *ResQNet.com*, 594 F.3d at 869 ("[T]he trial court must carefully tie proof of damages to the claimed invention's footprint in the market place."). Dr. Sullivan then uses a well-regarded, extensively published approach to econometric modeling, regression analysis, to calculate the economic benefit associated with those specific technical benefits. *Manpower, Inc. v. Ins. Co. of Pa.*, 732 F.3d 796, 808 (7th Cir. 2003) ("[R]egression analysis [is] a proven statistical methodology used in a wide variety of contexts."). After isolating these incremental revenues and deducting costs (an indisputably reliable method of calculating profits), Dr. Sullivan apportions profits based on Intel's contributions to realization of those profits by way of commercializing the patented technology. This fact-specific contribution apportionment, discussed in more detail in Section IV.A.4, caps off a

methodology that has been specifically endorsed by the Federal Circuit: isolate each patent's incremental benefits and award a reasonable royalty based on that "footprint."

Third, Intel's conjecture that Dr. Sullivan's exact fact-specific approach may not appear in public studies in fact underscores how closely Dr. Sullivan tied his work to the highly confidential facts of these cases. Hypothetical negotiations are different from real-world negotiations. For example, parties to the hypothetical negotiations must assume validity and infringement, and assess the **actual benefit** derived from "the use made of the invention by the infringer." 35 U.S.C. § 284. Those requirements are enabled by access to confidential discovery that is rarely, if ever, available in real-world negotiations. Because of these limits and information imbalances, real-world parties often are forced to use imperfect valuation tools and assumptions divorced from the patents' true value. These flawed methods may be necessary in the "real world," but they are often neither necessary nor legally permissible in a hypothetical negotiation, where extensive discovery provides highly confidential insights into the key statutory question. For example, the Federal Circuit has explained that the Nash Bargaining Solution and the 25% rule of thumb had "support in the literature," and were used as "a common starting point … of licensing negotiations across numerous industries." *VirnetX, Inc. v. Cisco Sys.*, 767 F.3d 1308, 1333 (Fed. Cir. 2014). But in both cases, the Federal Circuit "rejected [those approaches], insisting on testimony tied to **the particular facts**" of the case. *Id.; see also, e.g.*, *Vectura Ltd. v. GlaxoSmithKline LLC*, No. CV 16-638-RGA, 2019 WL 1352767, at *3 (D. Del. Mar. 26, 2019) ("While real world circumstances may be considered, they may not replace the hypothetical negotiation….").

Consistent with that requirement, **every** step of Dr. Sullivan's analysis is tied to the facts of these cases, and to Intel's confidential financial data and technical information regarding the operation of the accused features and products. In a real-world negotiation, neither Freescale nor

NXP could have accessed this information. Ex. 165, Lowe Dep. 230:13-231:6; Ex. 234, Klein Dep. 174:22-175:2; Ex. 235, Waxler Dep. 122:5-8. Nor is it surprising that every detail of this fact-intensive approach may not appear in a public paper, for the same reasons—every step in Dr. Sullivan's analysis relies on Intel's highly confidential source code, ██████████████████, technical specifications, or financial data. The details of Dr. Sullivan's analysis are so "tied to the particular facts" of the case, as the Federal Circuit requires, that it would be impossible for him to publish even one of his six steps. But this tells us nothing about whether Dr. Sullivan's *methodologies* themselves are reliable. As detailed herein, they are. It also says nothing of whether Dr. Sullivan's approach is consistent with Federal Circuit law. As explained herein, it is.

In sum, Intel's posturing about publications and "real-world" negotiations is incorrect on multiple levels—it misstates the facts about Dr. Sullivan's analysis and mischaracterizes the law. Ultimately, Dr. Sullivan eschewed indirect and imperfect proxies for patent value in favor of detailed measurements of the specific benefits Intel actually achieves through its infringement, as the law requires. This highly confidential, fact-specific analysis relies on well-accepted methodologies applied to the specific facts of these cases to calculate fully apportioned damages.

2. Dr. Sullivan Reliably Uses Regression Analysis To Assess The Relationship Between ██████████████████

Intel also asserts that Dr. Sullivan's use of regression itself was improper. D.I. 264 at 6-7. As a general matter, the Fifth Circuit has recognized that regression analysis can be used to "understand[] the relationship between a dependent and an explanatory variable," and that "this is a powerful tool." *United States v. Valencia*, 600 F.3d 389, 427 (5th Cir. 2010). Regression models of many different kinds have been accepted time and time again by federal courts, in many different contexts. *E.g.*, *Manpower*, 732 F.3d at 808; *Siler-Khodr v. Univ. of Tex. Health Sci. Ctr. San Antonio*, 261 F.3d 542, 547 (5th Cir. 2001); *Huawei Techs. Co. v. T-Mobile US*, No. 2:16-CV-00052, 2017

U.S. Dist. LEXIS 218166, at *29 (E.D. Tex. Sept. 10, 2017) ("Dr. Vander Veen's mobile data pricing regression analysis adequately approximates the value of the underlying technology, even if the approximation is not perfect."); *St. Clair Intellectual Prop. Consultants v. Acer, Inc.*, 935 F. Supp. 2d 779, 782 (D. Del. 2013) ("[The expert] applies a generally accepted statistical method, hedonics, to estimate the value of battery life using sufficient facts and data.").

Intel claims that regression analyses cannot be used to "value a single feature of a product like a microprocessor." D.I. 264 at 7. That is inaccurate: hedonic regression ***has*** been used to measure the relative value of different attributes of multi-feature products,[4] and has been used specifically to determine prices in many different contexts, including the microprocessor market, *e.g.*, Ex. 288, Byrne (2017); it has also been used by many different academics and institutions, including the federal government, Ex. 240, and Intel's own Dr. Hitt. *E.g.*, Ex. 232, Hitt et al. (1998), at 10, 18 ("This methodology can be considered an example of hedonic regression, which estimates the market shadow 'price' for various assets…."). Nor does Intel's criticism that hedonic regression cannot be used outside of the "price index" context make any sense. Hedonic regression is often used as a step in price index construction to isolate the historical effect of product characteristics on price—which is analogous to how Dr. Sullivan uses hedonic regression here.

Intel also claims that Dr. Sullivan's methodology was unreliable because hedonic methods cannot account for consumer demand, D.I. 264 at 7, but this is also inaccurate. Dr. Sullivan actually

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[4] *See, e.g.*, Ex. 236, Leishman (2001) at 136–138 ("Hedonic models, initially developed by Rosen (1974) following Lancaster (1966), may be used for the purpose of estimating the implicit (hedonic) prices of the ***individual attributes that comprise a composite good***."); Ex. 237, Holt & Borsuk (2020) at 4. ("The hedonic pricing method is used to ***decompose a tradable composite good into prices for its attributes***, i.e. the mean willingness to pay (MWTP) for those attributes (Rosen, 1974). … Estimation of the hedonic model provides the marginal implicit value of each attribute, or the change in the amount an individual would be willing-to-pay for a change in an attribute, holding all other attributes constant (Sander et al., 2010).").

explains that his model *does* account for consumer demand, *e.g.*, Ex. A, Sullivan Rpt. ¶¶ 54-67, and

that it does so across the market for Intel's products, including by using ███████████████

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As further evidence of the reliability of Dr. Sullivan's model, Dr. Sullivan performed a

battery of standard econometric analyses to confirm its reliability. *E.g.*, *id.* ¶¶ 200-218. Each of

these tests—which include the "R^2, the adjusted R^2, and a number of F-statistics," *id.* ¶¶ 200-202;

the "t-statistic, p-value, and the standard error," *id.* ¶¶ 203-205; and "sensitivity analyses," *id.* ¶¶ 212-

218—are widely recognized, well-documented, and each confirm the reliability of Dr. Sullivan's

analysis. For example, both the R^2 and adjusted R^2 are ███████████ which indicates that over ██%

of the variation in prices is explained by the features included in his model.

Thus, Intel's criticisms regarding the propriety of Dr. Sullivan's use of hedonic regression in

the first instance fall far short of suggesting any basis for exclusion.

3. Dr. Sullivan's Regression Analysis *Is* Tied To The Specific Asserted Patents And Accused Features

Intel next asserts that Dr. Sullivan's regression analysis should be excluded because it fails

to consider the "specific features" accused of infringement. D.I. 264 at 8-10. These arguments are

not well-taken. First, Intel is simply not correct. Dr. Sullivan's analysis *does* account for, and

properly apportions to, the specific incremental benefits that Intel gains from its infringement of

the patented inventions. Second, Intel suggests limiting the model to accused products, and

incorporating accused features as variables, but this misunderstands regression modeling and the

available data; if implemented, those steps would *reduce*, not improve, the reliability of the model.

Third, Intel's criticisms boil down to disagreements about the exact specification of the model and

data that Dr. Sullivan considered: classic examples of criticisms going to weight, not admissibility.

        (a)   <u>Dr. Sullivan's Damages Calculations Do Not Include Nonaccused</u>
<u>Features Or Products</u>

Intel's allegations that Dr. Sullivan includes nonaccused features or products in his damages calculation are incorrect and miss the point. Intel's criticisms here confuse multiple steps of Dr. Sullivan's analysis. In step two, Dr. Sullivan determines ███████████████████████████ ██████. In step three, he uses that relationship to determine ██████████████████████████ █████████████████████████. In step four, he ██████████████████████████████████████ █████████████████████████████. Intel ignores steps three and four, instead focusing myopically on step two. But even step two is fully tied to his analysis of the accused features and products.

First, contrary to Intel's suggestions in its brief, Dr. Sullivan did ***not*** include nonaccused products in his damages calculation at all: that assertion is based on a fundamental misunderstanding of Dr. Sullivan's regression model. Dr. Sullivan uses his regression model to evaluate the ***aggregate*** effect of ███████████████████████████████████████ ██████████ on the pricing of Intel's products. *E.g.*, Ex. A, Sullivan Rpt. ¶¶ 136-137. Although the regression model is a tool used in Dr. Sullivan's apportionment, the accused-feature-specific apportionment steps come ***after*** the regression, by applying the regression's output to the fully apportioned incremental benefits calculated by VLSI's technical experts. *Id.* ¶ 164.

Second, the accused features and patented inventions' benefits ***are*** accounted for in the regression. This is because their technical value is part of ██████████████████████████████ ████████ given fixed values of the other variables. *E.g.*, Ex. 230, Sullivan Dep. 213:15-214:2.

Consider, for example, a valuation model for a car, where the accused technology is one of multiple factors that improves the miles per gallon (MPG) of the car. An economist seeking to value the effects of the accused technology can do so by analyzing the overall MPG, rather than the specific accused technology, particularly when feature-level data is not available. Of course,

an additional apportionment step is needed to determine the feature-level benefit—*i.e.*, the specific feature's percentage impact on MPG—and that is exactly what Dr. Sullivan did after completing his regression analysis. *E.g.*, Ex. A, Sullivan Rpt. ¶¶ 219-233.

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(b)   Intel's Criticisms Of Data And Variables Included And Excluded From Dr. Sullivan's Model Are Misplaced
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Intel also argues more specifically that Dr. Sullivan's methodology was flawed because he should have limited his regression model to accused products, and included accused features as independent variables. D.I. 264 at 9-10. As Dr. Sullivan explained in both his report and his deposition, these modifications are not econometrically appropriate, and would have made his model *less* reliable. Intel's criticisms are simply not valid, but even if they were valid, they at most go to weight, not admissibility. *Bazemore v. Friday*, 478 U.S. 385, 400 (1986) ("While the omission of variables from a regression analysis may render the analysis less probative . . . [n]ormally, failure to include variables will affect the analysis' *probativeness*, not its *admissibility*.").

First, as to *accused products*, Dr. Sullivan explained that "[i]ncluding accused and nonaccused products in the model is economically appropriate and advantageous to the robustness of the model," including because it allowed the model to fully account for customer demand. Ex. A, Sullivan Rpt. ¶ 146. Furthermore, limiting the model to accused products would have reduced its reliability:[5]

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[5] *E.g.*, Ex. 238, Goldberger (1991), at 246 ("So the problem with multicollinearity … is quite parallel to the *problem of small sample size* when estimating the expectation of a univariate population.").

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Ex. 230, Sullivan Dep. 179:13-180:2, 182:5-10; *see also, e.g.*, *id.* 179:8-12, 181:8-14, 190:14-18,

185:2-8. This is evident from ██

████████████████████████████" Ex. 233, Hitt Rpt. ¶ 59. Similarly problematic,

Dr. Hitt ███

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to Dr. Sullivan's model, which included over *8.3 million* observations. Ex. A, Sullivan Rpt. ¶ 165.

Second, as to *accused features*, Dr. Sullivan extensively explained his variable selection

process. He in fact began with ██████████████████████████████████

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██████████████████ in his model. *Id.* ¶ 193 (listing included variables). He also includes ██

██████████████████ to "eliminate[] omitted variable bias." *Id.* ¶ 194 & n.408.

Intel cites to testimony from Dr. Sullivan to suggest that "it is not even possible to use the

accused features in the regression calculation." This is a false characterization of his testimony. In

context, he was simply confirming that he did not include "separate binary variables for the accused

features" in his regression model. Ex. 230, Sullivan Dep. 220:4-18. Nor would it have been

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6 Intel suggests that Dr. Sullivan should have included Speed Shift, an accused feature, as a variable. Speed Shift is missing in *86*% of observations, and was excluded on that basis. Ex. A, Sullivan Rpt. Attachment H-1.

appropriate to do so, as that could have raised issues of multicollinearity:

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Id. 212:15-213:4. Intel's Speed Shift criticism exemplifies this issue. Because certain benefits of

the accused Speed Shift feature were already captured by ███████████████ in Dr. Sullivan's

model, including another variable for Speed Shift could have ***reduced*** the reliability of the model.

Intel also claims that including Speed Shift as a variable, or modifying the underlying

dataset, could drastically change the "patent damages number," including ██████████████

D.I. 264 at 11. But these criticisms, in addition to being unsound for the reasons discussed above,

simply amount to a disagreement between experts on how to apply a sound methodology. In a

directly on-point case, the court concluded these types of arguments do not justify exclusion:

> Defendants' addition of RAM as a factor in the regression analysis, and the corresponding reduction in damages of $500 million, seems a compelling counter-position to Weinstein's position, but amounts to a ***disagreement between experts as to what variables should be considered***. That goes to the weight to be given to the opinion rather than its admissibility. *KAIST IP US LLC v. Samsung Elecs. Co.*, 2018 WL 2688185, at *2 (E.D. Tex. 2018).

The holding in *KAIST* is not unique. Federal courts at all levels have repeatedly held that

disagreements regarding the variables and data included in a regression are criticisms more properly

reserved for cross-examination than *Daubert*. *E.g.*, *Bazemore*, 478 U.S. at 400; *Siler-Khodr*, 261

F.3d at 547 (accepting regression analyses despite their omission of certain variables); *Manpower*,

732 F.3d at 808 (reversing exclusion of a regression analysis because "[w]hat [the court] took issue

with was [the expert]'s choice of data—variables—to employ"); *Wis. Alumni Research Found. v.*

Apple, 135 F.Supp.3d 865, 884 (W.D. Wis. 2015) ("[Defendant] faults [the expert]'s judgment on

which and how many variables to include, but this criticism also goes to the weight the jury may place on [the expert]'s testimony and not on the admissibility of his regression analysis."); *Robocast, Inc. v. Apple Inc.*, No. 11-235, 2014 WL 173186, at *1 (D. Del. Jan. 14, 2014) (same).

Intel's reliance on *Stragent, LLC v. Intel Corp.*, No. 6:11-cv-421, 2014 WL 1389304 (E.D. Tex. Mar. 6, 2014), is both misleading and misplaced. As an initial matter, in *Stragent*, the court excluded an expert's regression analysis in part because "his report does not say which features he ultimately chose to treat as variables in his analysis or explain the methodology he used to select those variables." *Stragent, LLC v. Intel Corp.*, 2014 WL 12611339, at *1 (E.D. Tex. Mar. 12, 2014). That is plainly not the situation here; Intel has acknowledged that Dr. Sullivan identified the variables—Intel's only complaint is with what the variables actually *are*.

More importantly, however, the *Stragent* court was directing its criticism not to the expert's use of regression—as Intel's motion appears to suggest—but to the expert's decision, having completed his hedonic regression, to then adopt an impermissible "rule-of-thumb" approach and arbitrarily assign equal value to all 19 features analyzed. *Stragent*, 2014 U.S. Dist. LEXIS 106167 at *14-*15. In other words, *Stragent*'s expert used hedonic regression to draw conclusions regarding the collective value of 19 features, and then arbitrarily divided that value by 19 to determine the value of a single feature within that bundle. *Id.* Dr. Sullivan did no such thing. Instead, Dr. Sullivan directly controlled for ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮, and then applied the results of that model to the technically apportioned benefits identified by VLSI's technical experts.

Accordingly, each of the steps in VLSI's damages methodology is directly tied to the facts of the case. Intel's quibbles with those facts can be addressed through cross-examination.

4. Dr. Sullivan's Contribution Apportionment Theory Is Reasonable, Tied To The Facts, And Not ▮▮▮▮▮▮▮▮▮▮

Intel next argues that Dr. Sullivan's contribution apportionment should be excluded

because he allegedly "asserts that the parties to the hypothetical negotiation would have agreed to ███████████████████ in VLSI's favor" and because it lacks "factual basis," D.I. 264 at 14-15, but these assertions are not correct. It is telling that Intel's brief devotes more real estate to misplaced posturing about the Nash Bargaining Solution than to addressing what Dr. Sullivan *actually did*— which was to apportion out, from his damages calculations, Intel's contributions to realizing the profits attributable to its infringement, and return those profits to Intel. Because Intel's contention that Dr. Sullivan employs a ███████████████ is wrong, Intel's cited cases are inapposite.

First, Dr. Sullivan's calculation is in no way a ████████████ as Intel contends. Instead, step six of Dr. Sullivan's analysis comprises a "contribution apportionment" (discussed Ex. A, Sullivan Rpt. § 13), to apportion out Intel's contributions to its realized profit benefits. Dr. Sullivan explained that this is preceded by, and separate from, step five, in which Dr. Sullivan performs a "cost apportionment" (discussed *id.* § 12), deducting Intel's incremental costs:

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After deducting costs, Dr. Sullivan "consider[ed] Intel's contributions to realizing the benefits of the patented technologies," Ex. A, Sullivan Rpt. ¶¶ 240-241, which included, for example, ██ *Id.* ¶ 242. Dr. Sullivan evaluated multiple factors to identify Intel's commercialization contributions (*see id.* § 13), ultimately using ██ as an economically appropriate estimate, as explained further below.

Dr. Sullivan then calculated a combined "[c]ost and contribution apportionment factor," which was ██ ████████████████████—hardly the ████████████ described by Intel. *See id.*, Att. E-3.

Those numbers account for **both** the cost **and** contribution apportionments. In other words, Dr. Sullivan combined steps five and six into a single calculation:

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Ex. 231, Sullivan Dep. 348:2-349:3. *See also* Ex. A, Sullivan Rpt. ¶¶ 296-297.

Second, Dr. Sullivan's use of ███████████████████████████ as an estimate of Intel's commercialization contribution, and as part of his calculation, is reasonable. By step six of Dr. Sullivan's analysis, all costs incurred by Intel to earn the incremental revenues it actually received as a result of its infringement have already been apportioned out, leaving only the incremental accused profits. Both parties contributed to the realization of this value: VLSI by providing the patented technology, and Intel by commercializing it. Thus, Dr. Sullivan divided the value between the parties based on Intel's commercialization contribution. This approach is consistent with the *Georgia-Pacific* factors, including Factor 13, which relates to distinguishing the value of the patented invention from non-patented elements, including any contributions by the infringer. So, to quantify Intel's commercialization contribution, Dr. Sullivan evaluated ████ ████ ████ ████ ████ for the accused products and identified the expenses reflecting commercialization activities beyond █████████████, which were accounted for in step five as incremental costs. Because ████ ████ ████ expenses are **not** limited to relevant

commercialization activities, Dr. Sullivan used them as an economically appropriate measure of Intel's maximum potential commercialization contribution.

Third, Dr. Sullivan's use of a single calculation to perform steps five and six is also reasonable because of the nature of the profit and loss data that Intel produced in these cases. For example, the ███ Dr. Sullivan explains that, in light of that limited data, it was appropriate "from a calculation perspective to make the singular adjustment" that accounted for both the incremental cost and contribution apportionments. Ex. 231, Sullivan Dep. 298:18-299:14 █████████████

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Fourth, Intel contends that "Dr. Sullivan does not identify a single fact connected to this case … [to] justify this profit split." D.I. 264 at 14-15. This is incorrect. Dr. Sullivan explains that the contribution apportionment factor is based on numerous facts within Intel's ***own produced data for each of the accused products***, as reflected in Attachment E-3 to his report, and are indisputably facts specific to these cases.
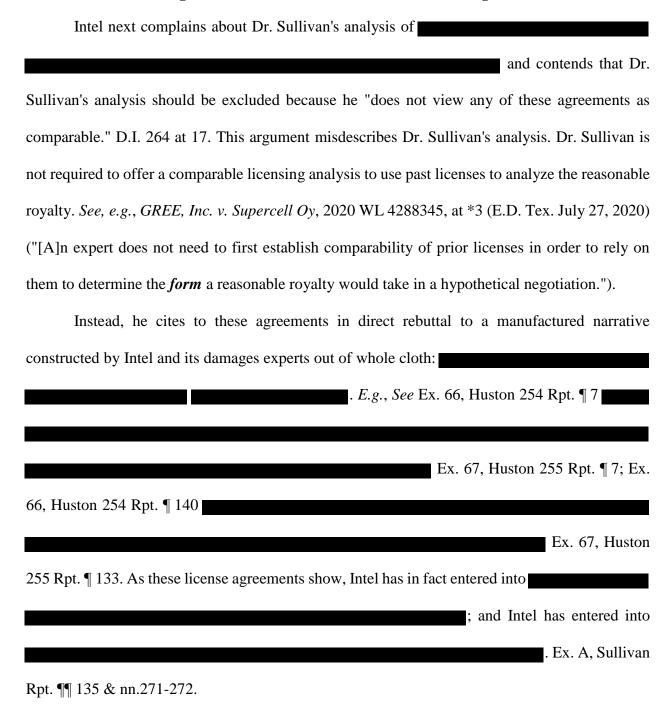
B.   Dr. Sullivan Properly Relies On Technical Inputs From Technical Experts

VLSI disagrees that the damages-related opinions of its technical experts are flawed, and refers the Court to its concurrently filed oppositions to Intel's *Daubert* motions, which arguments it will not repeat here. Furthermore, Intel's contention that Dr. Sullivan's analysis should be excluded simply because he relies on other experts is not consistent with the law. The relevant question is whether the record contains evidence that Dr. Sullivan's damages analysis is properly apportioned. *See Williams v. Illinois*, 132 S. Ct. 2221, 2228 (2012) ("Under settled evidence law, an expert may express an opinion that is based on facts that the expert assumes, but does not know, to be true."). Intel is free to call its experts to dispute the substantial incremental benefits VLSI's

experts have measured as being attributable to the patented inventions. But Dr. Sullivan's reliance

on those apportioned incremental benefits as an input is not grounds for exclusion under *Daubert*.

C.   Intel's Agreements Are Relevant To Rebut Intel's Litigation Positions

Intel next complains about Dr. Sullivan's analysis of ██████████████████████

███ and contends that Dr.

Sullivan's analysis should be excluded because he "does not view any of these agreements as

comparable." D.I. 264 at 17. This argument misdescribes Dr. Sullivan's analysis. Dr. Sullivan is

not required to offer a comparable licensing analysis to use past licenses to analyze the reasonable

royalty. *See, e.g.*, *GREE, Inc. v. Supercell Oy*, 2020 WL 4288345, at *3 (E.D. Tex. July 27, 2020)

("[A]n expert does not need to first establish comparability of prior licenses in order to rely on

them to determine the *form* a reasonable royalty would take in a hypothetical negotiation.").

Instead, he cites to these agreements in direct rebuttal to a manufactured narrative

constructed by Intel and its damages experts out of whole cloth: ████████████████

████████████████ ███████████████. *E.g.*, *See* Ex. 66, Huston 254 Rpt. ¶ 7 ████

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████████████████████████████████████ Ex. 67, Huston 255 Rpt. ¶ 7; Ex.

66, Huston 254 Rpt. ¶ 140 ██████████████████████████████

██ Ex. 67, Huston

255 Rpt. ¶ 133. As these license agreements show, Intel has in fact entered into ████████

████████████████████████████████; and Intel has entered into

██. Ex. A, Sullivan

Rpt. ¶¶ 135 & nn.271-272.

There is nothing improper about Dr. Sullivan's reference to and analysis of these licenses,

nor would they be cause for jury confusion. There is no basis for exclusion here. *Odyssey Wireless,*

Inc. v. Apple Inc., No. 15-cv-1735, 2016 WL 7644790, at *5 (S.D. Cal. Sept. 14, 2016) ("Apple's

reliance on these licenses to support its contention that it would receive a lump-sum payment is

permissible. … Any challenge … goes to the weight, not the admissibility.")

IV.   CONCLUSION

Dr. Sullivan used sound methodologies to calculate a reasonable royalty based on the specific

facts of these cases. VLSI respectfully requests that the Court deny Intel's *Daubert* motion.

Respectfully submitted,

Dated: October 22, 2020

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<u>CERTIFICATE OF SERVICE</u>

A true and correct copy of the foregoing instrument was served or delivered electronically

via email, to all counsel of record, on October 22, 2020.

            /s/ Jordan Nafekh
            Jordan Nafekh